Applicants: Heeres, et al.

Application No.: 10/537,037

Filed: June 1, 2005

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**AMENDMENTS TO THE CLAIMS:** 

This listing of claims replaces all prior versions of listing of claims, and listing of claims

in the application.

1-9 (Cancelled)

10. (Currently Amended) A method for breeding and selecting a potato comprising crossing

a first parent potato with at least one amf-gene amf-allele with a second parent potato without an

amf-gene amf-allele and selecting progeny by testing it said progeny for the presence of at least

one amf-gene amf-allele and testing it said progeny for protein content and selecting progeny

with at least one amf-gene amf-allele with a protein content higher than detected in said first

parent or said second parent.

11. (Currently Amended) A method according to claim 10 further comprising testing for

protein content by determining protein content of it's tubers or root caps of said progeny.

12. (Previously Presented) A method according to claim 10 further comprising selecting

progeny homozygous for the amf-gene.

13. (Cancelled)

14. (Cancelled)

A method according to claim 11 further comprising selecting progeny 15. (New)

homozygous for the *amf*-gene.

16. (New) A method for increasing protein storage in a potato comprising providing a potato

with an *amf*-allele according to the method of claim 10.

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- 17. (New) A method according to claim 16, wherein said potato is homozygous for the *amf*-allele.
- 18. (New) A method according to claim 16, wherein the protein content of tubers of the selected progeny is at least 0.9% m/m.
- 19. (New) A method according to claim 18, wherein the protein content of tubers of the selected progeny is at least 1.2% m/m.
- 20. (New) A method according to claim 19, wherein the protein content of tubers of the selected progeny is at least 1.5%m/m.
- 21. (New) A method according to claim 16, wherein coagulating protein versus starch ratio of the selected progeny is at least 45 kg/ton.
- 22. (New) A method according to claim 21, wherein coagulating protein versus starch ratio of the selected progeny is at least 90 kg/ton.
- 23. (New) A method according to claim 16, further comprising providing said selected progeny with a gene encoding a heterologous protein.
- 24. (New) A method according to claim 23, wherein the heterologous protein is selected from the group consisting of DHPS, PMC, vicilin, SCR1, Fcor2, TLRP, multicystatine, yZein, 10kDa Zein, 2S albumin, TIP13, PTGRP, PA1b, SE60, and PCP1.